REMARKS

Entry of the foregoing, reexamination and reconsideration of the above-identified application are respectfully requested.

Claims 2, 3, 12-14, 16, 19-22 and 24-34 have been rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. This rejection has been rendered moot in part by the instant amendment and is respectfully traversed in part.

The term "participates" is said to be unclear in the claims, e.g., to what extent a protein has to be involved to "participate" in differentiation. This term has been deleted from the claim. The claims now state that the protein "regulates" differentiation.

In claim 3, line 6, "and" has been inserted before "further," as requested in the Official Action.

Regarding "homeodomain-like sequence," one skilled in the art would recognize that a "homeodomain" functions to bind DNA to regulate transcription. Thus, a "homeodomain-like sequence" refers to a sequence which will bind to DNA. It is believed that this terminology would be sufficiently clear to a person skilled in the art.

Other aspects of this rejection are rendered moot by the cancellation of the claims.

Withdrawal of this rejection is respectfully requested and believed to be in order.

Claims 2, 3, 19-22 and 24-34 have been rejected under 35 U.S.C. §112, first paragraph, as allegedly not being enabled by the specification. This rejection is respectfully traversed in part and rendered moot in part.

The Examiner acknowledges that the specification enables claims directed to a polynucleotide encoding a protein whose amino acid sequence is SEQ ID NO:2, as well as vectors, transformed host cells, plant and plant cells, and methods for inducing adventitious shoot formation and branching. However, it is asserted that broader claims are not enabled. Applicants respectfully disagree.

Claim 3 and claims dependent there from require that the claimed isolated polynucleotide (1) "hybridizes to the complement of a nucleic acid having the nucleotide sequence as set forth in SEQ ID No: 1 or a portion thereof under high stringency conditions," (2) "encodes a protein, wherein said protein regulates differentiation, wherein said differentiation is selected from the group consisting of formation of adventitious shoot and branching," and wherein the protein (a) "has a homeodomain-like sequence," and (b) "the amino acid sequence of said protein has at least 90% amino acid identity to SEQ ID NO: 2." Such polynucleotides would be enabled by the specification.

No undue experimentation would be involved to make and use such a polynucleotide. As a result of the instant amendment, the scope of the claim has been narrowed. As shown above, the polynucleotide must meet specific, defined criteria to fall within the scope of the claims. One skilled in the art can readily determine whether a polynucleotide (1) "hybridizes to the complement of a nucleic acid having the nucleotide sequence as set forth in SEQ ID No: 1 or a portion thereof under high stringency conditions." Stringent conditions are defined at page 8, lines 4-6 of the specification.

One skilled in the art can also readily determine whether a polynucleotide (2) "encodes a protein, wherein said protein regulates differentiation, wherein said

differentiation is selected from the group consisting of formation of adventitious shoot and branching." The Examples in the specification tell how to screen polynucleotides to determine whether differentiation is regulated. *See, e.g.,* Examples 1 and 4.

One skilled in the art could also determine whether the protein (a) "has a homeodomain-like sequence," and (b) "the amino acid sequence of said protein has at least 90% amino acid identity to SEQ ID NO: 2." It is noted that a "homeodomain" functions to bind DNA to regulate transcription. Thus, a "homeodomain-like sequence" refers to a sequence which will bind to DNA. One skilled in the art could readily determine whether a sequence will bind to DNA or not. Thus, one skilled in the art would be enabled to practice the invention as claimed. No undue experimentation would be required.

Withdrawal of this rejection is respectfully requested. Such action is believed to be in order.

Claims 2, 3, 19-22 and 24-34 have been rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter not described in the specification. This rejection is respectfully traversed.

The claims have been amended and the scope of the claims has been narrowed. The claimed sequence must (1) hybridize to the complement of a nucleic acid having the nucleotide sequence as set forth in SEQ ID No: 1 or a portion thereof under high stringency conditions, (2) encode a protein, wherein said protein regulates differentiation, wherein said differentiation is selected from the group consisting of formation of adventitious shoot and branching, and the encoded protein must (a) have a homeodomain-like sequence, and (b) have an amino acid sequence

with at least 90% amino acid identity to SEQ ID NO: 2. The scope of this claim is not unduly broad. One skilled in the art would recognize that applicants were in possession of such polynucleotides based upon the description in the specification.

Withdrawal of this rejection is respectfully requested. Such action is believed to be in order.

Claim 31 has been rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Olsson et al, WO 99/50417 (1999). This rejection is rendered moot by the cancellation of this claim. Withdrawal of this rejection is respectfully requested and believed to be in order.

Claims 2, 3 and 19-22 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Kotani et al (1997). This rejection is rendered moot by the cancellation of claim 2 and the amendment to claim 3 to recite that the amino acid sequence has at least 90% amino acid identity to SEQ ID NO: 2.

It is noted, however, that the cited reference refers to GenBank. Applicants searched the homology, however, could not find a sequence having 76.9% homology with SEQ ID NO: 1 or 2. Should this rejection be maintained, it is respectfully requested that the sequence be cited be defined with more particularity.

Withdrawal of this rejection is respectfully requested. Such action is believed to be in order.

Applicants note with appreciation the indication that claims 1, 7-10, 15, 17 and 18 are allowable. In view of the above and the instant Amendments, it is believed that all of the claims are now in condition for allowance.

It is respectfully submitted that all rejections have been overcome by the above amendments. Thus, a Notice of Allowance is respectfully requested.

In the event that there are any questions relating to this amendment or the application in general, it would be appreciated if the Examiner would contact the undersigned attorney by telephone at (703) 836-6620 so that prosecution of the application may be expedited.

Respectfully submitted,

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